

AR17

Northgate

EXPLORATION LIMITED

ANNUAL REPORT 1978



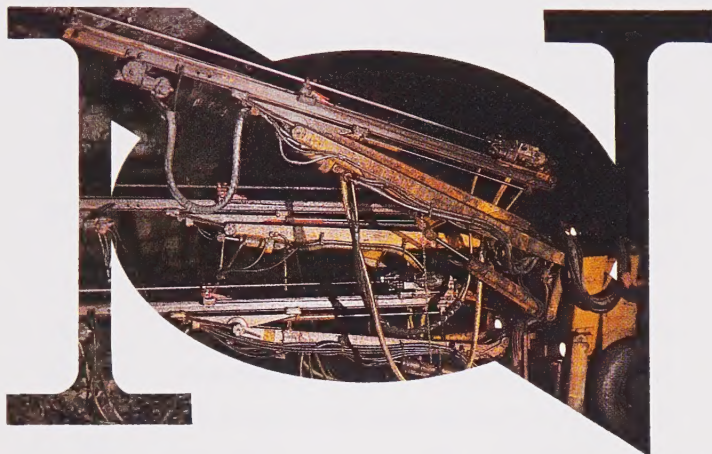


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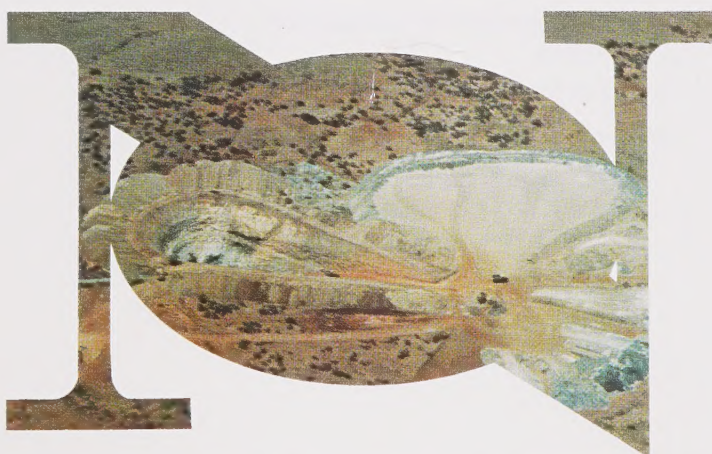
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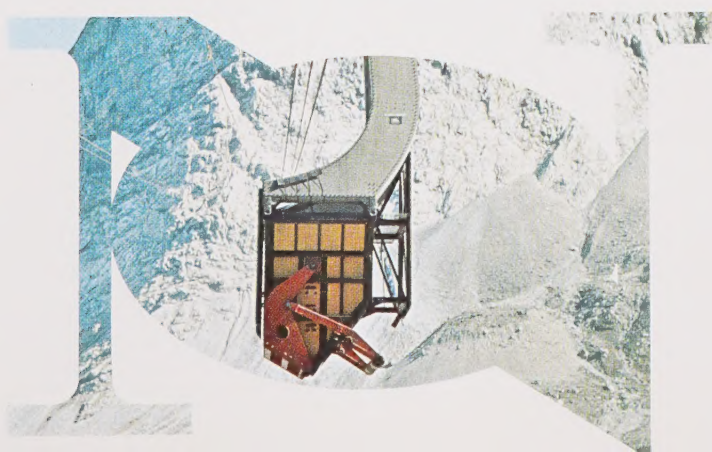
Tynagh Mine, County Galway, Republic of Ireland, operated by Irish Base Metals Limited, wholly owned subsidiary of Northgate Exploration Limited. From 1965 to 1978, approximately eight million tons of ore mined and some 1.5 million tons of concentrates produced.



Navan zinc-lead mine, County Meath, Republic of Ireland, operated by Tara Mines Limited, 75% owned by Tara Exploration and Development Company Limited. Northgate has an approximate 10% equity interest in Tara Exploration and Development Company. Other major corporate shareholders include Noranda (41%), Cominco (19.9%) and Charter Consolidated (10.7%).



Whundo open pit copper deposit, Western Australia. Scene of modest operation during 1976 by Whim Creek Consolidated N. L., with the extraction of 6,000 metric tons of direct shipping ore containing an estimated 3.2 million lbs. of copper. This Australian affiliate is now planning mining of low grade gold deposits by heap leaching. Northgate has a 41.6% combined direct and indirect interest in Whim Creek.



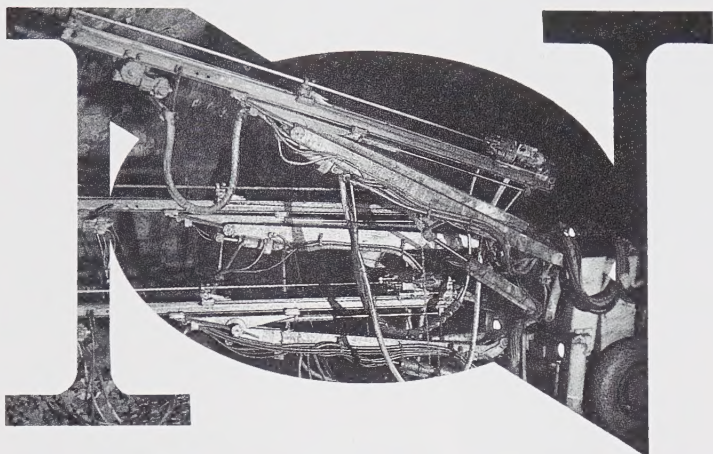
Black Angel Mine, West Greenland, operated by Greenex A/S, wholly owned subsidiary of Vestgron Mines Limited. Northgate owns a 9.6% combined direct and indirect equity interest in Vestgron. Cominco Ltd. is the major owner (62%) in Vestgron.

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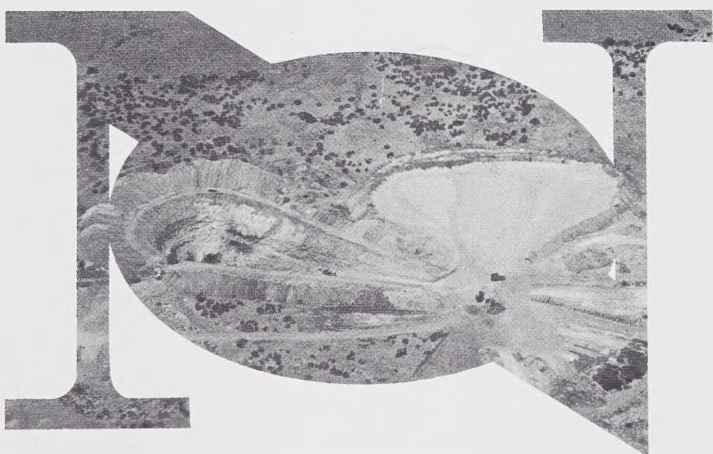
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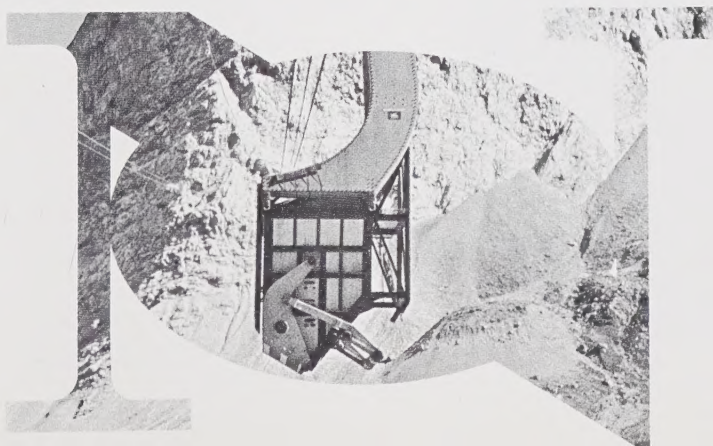
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Financial Highlights

	1978	1977 (1)
Net smelter value	\$9,006,000	\$13,908,000
Mine operating income (before w.o.'s)	832,000	3,001,000
Investment income	2,736,000	2,102,000
Exchange gains (losses)	(23,000)	30,000
Depreciation and amortization	1,498,000	2,353,000
Net income (loss) Per share	458,000 \$0.07	(590,000) \$(0.085)

AT YEAR END

Working capital	\$25,616,000	\$28,217,000
Ratio of current assets to current liabilities	3.6 to 1	5.5 to 1
Total assets	59,089,000	56,120,000
Shareholders' equity	48,648,000	48,190,000
Investments	19,096,000	18,127,000
Fixed assets	18,560,000	16,117,000
Less accumulated depreciation	14,539,000	13,272,000
	4,021,000	2,845,000
Weighted average number of shares outstanding during the period used in computing earnings per share	6,891,699	6,891,699

Production Highlights

	1978 (2)	1977
Tynagh Mine Tons of ore treated	255,079	616,388
Production of concentrates		
Tons of lead concentrates	11,453	25,053
Tons of zinc concentrates	12,569	27,491
Tons of bulk concentrates	2,115	5,309
Tons of copper concentrates	1,135	1,648
Total tons of concentrates	27,272	59,501
Payable metals contained in concentrates sold		
Lead (lbs)	12.3 million	37.0 million
Zinc (lbs)	12.1 million	20.9 million
Copper (lbs)	0.8 million	0.1 million
Silver (ozs)	263,000	512,000

- NOTES 1. Certain of the 1977 figures have been restated.
2. Operations suspended from July 10, 1978 due to a labour dispute.

EXECUTIVE AND
HEAD OFFICE

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P.O. Box 27, Toronto, Canada M5K 1A1
Telephone: Area Code 416-362-2781, Telex 06-217766

DUBLIN OFFICE

Irish Base Metals Limited — Gortdrum Mines (Ireland) Limited
162 Clontarf Road, Dublin 3, Republic of Ireland
Telephone: 332211, Telex 5881

LONDON OFFICE

Northgate Metals and Minerals Limited
30 St. George Street, London W1R 9FA, England
Telephone: 01-491-7531, Telex 267615

AUDITORS IN CANADA

Thorne Riddell & Co., Chartered Accountants
Toronto, Canada

AUDITORS IN IRELAND

Griffin, Lynch & Co., Chartered Accountants, Dublin, Republic of Ireland

BANKERS

The Toronto-Dominion Bank, Toronto, Canada
Bank of Nova Scotia, Toronto, Canada
Allied Irish Banks, Dublin, Republic of Ireland
Morgan Guaranty Trust Company

TRANSFER AGENTS

CANADA — Crown Trust Company
Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia

UNITED STATES OF AMERICA —
The Bank of New York, New York, N.Y.

UNITED KINGDOM —
Charter Consolidated Limited, Ashford, Kent, England

REGISTRARS

CANADA
Canada Permanent Trust Company
Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia

UNITED STATES OF AMERICA
The Bank of New York, New York, N.Y.

UNITED KINGDOM
Morgan Grenfell & Co., Limited, London, England

SOLICITORS

Fasken & Calvin, Toronto, Canada
Olin & Phillips, New York, U.S.A.
Whitney, Moore & Keller, Dublin, Republic of Ireland

STOCK EXCHANGE
LISTINGS

New York Stock Exchange, New York, U.S.A.
The Stock Exchange, London, England
Toronto Stock Exchange, Toronto, Canada

DIRECTORS' REPORT TO SHAREHOLDERS

In 1978 operations at the Tynagh Mine were severely affected by a labour dispute which resulted in a reduction of concentrate production to less than fifty per cent of the total scheduled. Except for the strong recovery of metal prices during the second half of the year which enabled an upward revaluation of the year end concentrate inventory, the mine operating loss for the year totalling \$666,000 would have been substantially greater.

As previously reported, the labour dispute was settled in December, 1978 and, as a result, shipments of concentrates resumed early in January. Following a period of necessary underground preparations, regular mine production recommenced late in February.

Due to the shut down of the mine for almost half of 1978, the previous forecast of the termination of operations at the end of 1979 is now likely to take place during the second half of 1980.

If current buoyant metal prices prevail throughout 1979, they will have a positive impact on anticipated earnings from mining operations for the current year. However, profitability will be subject to uninterrupted operations for the remainder of the year and the attainment of economic cost and production levels.

Financial Results

The financial results for the year 1978 show a consolidated net profit of \$458,000 equal to 7¢ per share compared with a net loss in 1977 of \$590,000 or 8.5¢ per share. Results for 1977 included an extraordinary credit of \$178,000 or 2.5¢ per share, being a reduction in income taxes resulting from the utilization of amounts expensed in prior years.

The favourable effect of the adjustment in the value of concentrate inventory is evident in the fourth quarter 1978 with a consolidated net profit for the period of \$763,000 equal to 11¢ per share compared with a net loss of \$836,000 or 12.5¢ per share for the same period in 1977.

Net revenue from concentrate production amounted to \$9,006,000 against \$13,908,000 in the previous year. The decline in revenue was principally due to the suspension of mining operations during the second half of 1978. Although operating expenses were lower at \$6,742,000 (\$9,115,000 in 1977) owing to the shutdown of operations from July 10, 1978, the unit cost per ton of ore mined and milled was substantially higher at \$26.38 (\$14.74 per ton in 1977) due in part to care and maintenance costs while operations were suspended.

As previously mentioned, results for 1978 include a mine operating loss of \$666,000 compared with an operating profit of \$648,000 in 1977. The operating loss for 1978 was mainly attributable to the uneconomic level of production during the first quarter of the year and the suspension of operations during the second half of the year.

The 1978 operating loss would have been substantially greater but for the increase in value of the concentrate inventory as a result of the significant improvement in the lead price during the second half of the year which was taken into account in the fourth quarter. It is noted that the operating loss for the nine months ended September 30, 1978 amounted to \$1,641,000.

Results for 1978 also include non-operating income of \$2,709,000 and exploration expenditures of \$1,887,000 compared with \$1,498,000 and \$2,371,000 respectively for 1977. The improvement in non-operating income in 1978 was mainly attributable to higher income from short-term investments as a result of higher interest rates and reduced losses by associated companies.

Financial Position

Working capital at December 31, 1978 was \$25,616,000 compared with \$28,217,000 (restated) at the previous year end. The quoted value of your Company's investments, including shares of associated companies, at December 31, 1978 was approximately \$34.4 million.

Investments

Your Company's two principal investments are its holdings of 643,741 shares (9.97%) of **Tara Exploration and Development Company Limited** and a direct ownership of 220,000 shares (5.2%) and a combined direct and indirect ownership of 405,282 shares (9.6%) in **Vestgron Mines Limited**.

The large zinc-lead mine at Navan, Ireland, 75% owned by Tara, while still operating below capacity, is expected to attain its planned production rate of 400,000 metric tons of zinc concentrate and 70,000 metric tons of lead concentrate annually during the current year. Vestgron Mines, a Cominco Ltd. subsidiary, owns and operates a high grade zinc-lead mine in Greenland, with annual production in the order of 142,000 metric tons of zinc concentrate and 42,000 metric tons of lead concentrate.

Both of these companies are well positioned to benefit from the sharply improved prices for zinc and lead, currently around 32% and 100% respectively, above the average 1978 prices. In its preliminary unaudited statement of 1978 results, Vestgron reported gross revenue from concentrate sales of \$45.9 million and net earnings of \$3.7 million equal to \$0.86 per share compared with \$5.7 million or \$1.35 per share in 1977.

The major portion of Vestgron's 1978 earnings were derived from fourth quarter sales with indicated earnings for that quarterly period of approximately \$3.4 million equal to about \$0.80 per share. The 1978 fourth quarter was the period during which zinc and lead prices gained appreciably but still significantly below the current levels.

Additional details concerning your Company's investments and principal associated companies are set out in pages 14 to 17 of this Annual Report.

Exploration

Your Company's major areas of interest are natural resources. Its strong cash position, bank financing capabilities and other assets enable orderly expansion and diversification, both internally through its ongoing commitment to mineral exploration and now emerging role in oil and gas, as well as through acquisitions as opportunities and circumstances warrant.

As underscored in last year's Annual Report, your Company is intensifying its efforts in this connection with emphasis being placed on energy-related opportunities.

To this end, your Company has recently entered into an agreement for the exploration and development of oil and gas properties throughout North America but primarily in Western Canada, with **Mission Oil and Gas Limited**, a newly formed private company headquartered in Calgary, Alberta.

Mission Oil and Gas Limited is being financed for an initial five-year term by Northgate and other Canadian investors. Mission's initial annual budget for oil and gas exploration and development will be of the order of \$6 million but, in due course, hopes to be able to increase this to \$15 million through the participation of additional investors. Your Company's annual contribution to this project is approximately \$1 million for exploration and up to \$2 million for development, as required.

Mission Oil and Gas is currently evaluating several oil and gas projects including proposals in the Utikuma and Wabiskaw areas, north of Edmonton, Alberta. A U.S. subsidiary, Mission Resources, Inc., has been incorporated and is qualified to do business in Wyoming, Oklahoma and Texas.

Independent of the foregoing, your Company has a 25% working interest in Woods Joffrey A6-33-38-26 W4th Meridian, a dual zone gas discovery located on 2,080 acres of lease mid-way between Calgary and Edmonton, Alberta. The upper reservoir tested gas at 478 thousand cubic feet per day, while the lower gave gas up to 3.6 million cubic feet per day and some condensate. Due to mechanical problems, some of the latter test results did not provide all the data required and a further program of testing is being planned. Additional well drilling is also contemplated for this lease.

Your Company is also directly participating in an oil project in British Columbia with a one-third commitment for drilling costs to earn a 25% working interest.

Other projects involving the purchase of existing gas and oil production are under active consideration.

From the standpoint of mineral exploration, your Company has budgeted a total of \$2.3 million for 1979 of which \$1.6 million has been allocated for exploration in Ireland including the continuing high priority program in the Tynagh Mine lease area which is costed at \$250,000. On a group

basis, the combined exploration budget for your Company and its associated companies, notably Anglo United Development Corporation and Westfield Minerals, 1979 expenditures are expected to total in excess of \$3.5 million.

The budget for North America, mainly in Canada, has appreciably increased its target to an estimated \$665,000 of which some 60% is planned for the recently acquired properties in Newfoundland, with special emphasis on those areas adjacent and near Westfield Minerals' recent uranium discoveries.

Further details regarding your Company's 1978 exploration activities and current year objectives appear on pages 12 to 13 in this Annual Report.

Corporate Control Change

On November 17, 1978 Pacific Trust Co., N.V., Trustee for the Patrick Joseph Hughes Family Trust, purchased 1,000,000 shares of Northgate Exploration Limited (14.5%) from Tara Exploration and Development Company Limited at a price of Can\$8.75 per share and in addition, for a consideration of 25¢ per share, the Trustee acquired a 36-month option from Tara to purchase the latter's remaining 501,714 shares (7.3%) of Northgate at a price of Can\$8.50 per share. Noranda Mines Limited owns approximately 41% of Tara.

Following on this transaction, Noranda-Tara appointees Messrs. E. Kendall Cork, Brendan Hynes and William James retired from the Board.

Organization

The Board of Directors records with sadness, the death on October 15, 1978 of Mr. Murray K. Pickard. Mr. Pickard joined the Northgate group of companies in 1963 and was Vice President of Operations of the Company and General Manager of Irish Base Metals Limited until March, 1972 at which time he retired from these positions but continued to serve as a consultant to Northgate and several of its associated and subsidiary companies. He was also a Director of the Company since 1970 and served on the Boards of associated Westfield Minerals Limited and Whim Creek Consolidated N.L.

Mr. George T. Smith was elected a Director on November 1, 1978 to fill the vacancy created by the death of Mr. Pickard. Mr. Smith had previously served on the Board of Northgate from 1964 to April, 1974 and during most of this period was the Company's Executive Vice President. Mr. E. J. McConnell, a director since May, 1973, also retired from the Board.

Dr. William F. James, who was a Director since November, 1963, also retired from the Board during January 1979. He also served on the Boards of subsidiary companies, Irish Base Metals Limited and Gortdrum Mines (Ireland) Limited. Dr. James, a dean of Canadian geologists who practised his profession for more than 50 years, and a man of exceptionally sound judgement, made an outstanding contribution to the affairs of the Northgate Group of Companies throughout his nearly 15 years of dedicated service.

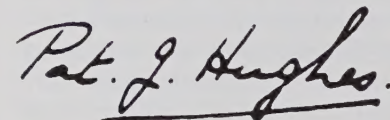
Messrs. Jerome C. Byrne, John G. Dunlap, Q.C., A. Garfield Heyes, John Kostuik and Joseph V. McParland were elected to the Board to fill these vacancies.

Mr. Patrick J. Hughes, President of the Company since 1958, was appointed Chairman of the Board and Mr. George T. Smith was appointed President and Chief Executive Officer. These appointments were effective from March 15, 1979. During September, 1978, Mr. Sylvester P. Boland, Vice-President of Finance, was appointed Executive Vice-President of the Company.

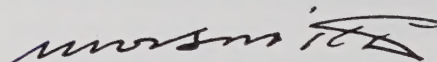
Appreciation

The Directors gratefully acknowledge the excellent cooperation and diligent efforts of management and employees throughout 1978 which was a difficult if not challenging year for the Company.

On behalf of the Board,



Patrick J. Hughes,
Chairman



George T. Smith,
President and
Chief Executive Officer

Toronto, Canada
March 15, 1979



**Annual Meeting of
Shareholders**

*The Annual Meeting of
Northgate Exploration Limited
will be held at 9:30 a.m.
(Toronto Time) on Friday, June
22nd, 1979 in the Alberta Room
of the Royal York Hotel, 100
Front Street West, Toronto,
Ontario.*

*Formal notice of the meeting
will be sent to shareholders with
the proxy material during May.*



REVIEW OF TYNAGH MINE OPERATIONS

Operations at the Tynagh Mine were suspended on July 10, 1978 because of a labour dispute. The loss of production for virtually the entire second half of the year together with the reduced level of operations during the first quarter, resulted in a substantial reduction of concentrate output during 1978. The labour dispute was settled in December, 1978 and, as a result, shipments of concentrates resumed early in January, 1979 and regular mine production resumed during the following March.

During the restricted period of operations in 1978 a total of 255,079 tons of ore was treated at an average rate of approximately 1,425 tons per operating day. This compares with 616,388 tons treated in 1977 at an average rate of approximately 1,707 tons daily.

The grade of ore fed to the dense media plant was:

	Lead %	Zinc %	Copper %	Silver ozs/ton
1978	4.07	3.43	0.22	1.26
1977	3.56	3.04	0.19	1.52

Concentrate Production and Recoveries

The following is a summary of concentrate production for 1978 with comparative figures for 1977:

	1978	1977
Tons of lead concentrate	11,453	25,053
Tons of zinc concentrate	12,569	27,491
Tons of bulk concentrate	2,115	5,309
Tons of copper concentrate	1,135	1,648
Totals	27,272	59,501

Metallurgical recoveries in 1978 compared with 1977 were as follows:

	Recoveries			
	Lead %	Zinc %	Copper %	Silver %
1978	90.7	78.9	79.3	76.1
1977	90.1	80.8	78.6	74.6

Payable Metals and Concentrate Sales

The approximate totals of payable metals in concentrates sold during 1978 and 1977 were as follows:

	1978	1977
Lead (in millions of pounds)	12.3	37.0
Zinc (in millions of pounds)	12.1	20.9
Copper (in millions of pounds)	0.8	0.1
Silver (thousands of ounces)	263	512

Concentrate sales during 1978 included 2,084 tons of copper concentrate as compared with 543 tons in 1977.

Metal Prices

The following table shows the average metal prices received from sales of concentrates during 1978 with comparative prices for 1977, as well as the average quoted prices for 1978. Prices are based on London Metal Exchange quotations for lead, copper and silver, and the

G.O.B. European producer price for zinc, all expressed in equivalent U.S. funds.

	1978	1977	Quoted Average 1978
Lead — per lb.	26.5¢	28.4¢	29.8¢
Zinc — per lb.	27.5¢	32.5¢	27.5¢
Copper — per lb.	53.7¢	55.0¢	61.8¢
Silver — per oz.	\$5.06	\$4.74	\$5.42

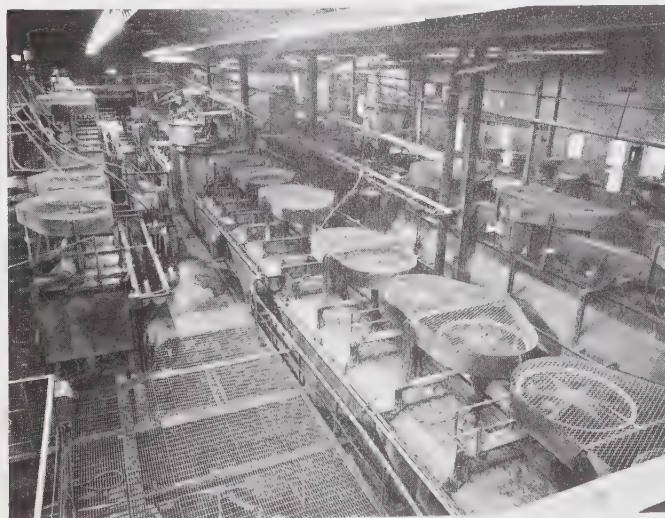
Prices for these metals which were singularly depressed during early 1978, firmed appreciably in subsequent months and currently are at or close to historic peaks. The G.O.B. European producer price for zinc, which dropped from the U.S. equivalent of 27.2¢ per lb. to 24.9¢ in February, made successive gains during later months to close the year at 34.5¢, and subsequently continued to advance to a February 14, 1979 posted price equal to 36.3¢ per lb. Lead, which is particularly significant for the Tynagh Mine, was exceptionally buoyant, climbing from the 1978 low of 24.4¢ to a year end high of 38.6¢ per lb., subsequently reaching an all-time high on March 6, 1979 of 50.7¢ per lb.

Copper prices, traditionally volatile, ranged between the equivalent of 54.2¢ and 68.9¢ per lb. on the London Metal Exchange during 1978, and currently around 87¢ per lb. after reaching a peak of over 90¢. Silver prices varied during the year from a low of \$4.85 to a high of \$6.27, and currently quoted at around \$7.50 per ounce. If these metal prices are sustained at or close to current levels for the remainder of 1979, realizations from the projected sales of concentrates during the current year will be significantly improved.

Mine Operating Costs

Direct operating costs per ton of ore mined and treated during 1978 increased to \$26.38 per ton from \$14.74 in 1977. This increase reflects the reduced tonnage treated during 1978 and the attendant care and maintenance costs for the shut-down period in the second half of the year.

Flotation Section of Concentrator



Production Schedule for 1979

Regular mining and milling operations resumed toward the end of February, 1979. The production schedule for the ensuing approximate 10 month period envisages treating approximately 500,000 tons of ore yielding an estimated 64,000 tons of concentrates. Firm arrangements have been made for the sale of the entire concentrate production of the Tynagh Mine through 1980 as well as approximately 7,100 tons of copper concentrates produced in 1978 and prior years.

Ore Reserves

The underground ore reserves are located in Zone II, which occurs beneath and adjacent to the boundary of the open pit, and in Zone III, which lies approximately 600 feet to the east. During 1978 the development openings in Zone III were extended and detailed mining plans were completed for most of the orebodies in this zone.

The following table shows the mineral content of the proven ore reserves as of December 31, 1978:

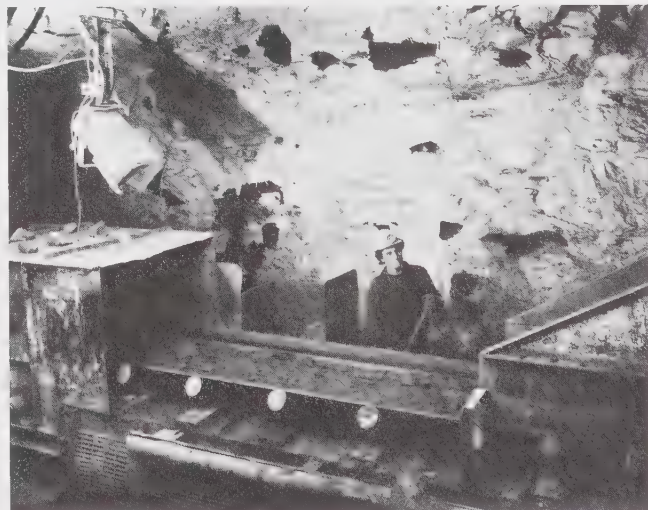
Location	Tons	Lead %	Zinc %	Copper %	Silver ozs/ton
Zone II	123,000 ⁽¹⁾	3.16	2.70	0.50	1.34
Zone III	779,000 ⁽²⁾	5.25	3.56	0.18	1.11
Total	902,000	4.97	3.44	0.22	1.14

(1) Includes a dilution allowance of 5% waste at zero grade.

(2) Includes a dilution allowance of 10% waste at zero grade because higher dilution in the mining of ore from this zone is expected.

The Zone II and Zone III reserves noted above exclude approximately 45,000 tons and 280,000 tons respectively which were contained in the stated reserves as of December 31, 1977. This material was excluded at the end of 1978 following the redesign of the various mining blocks.

Underground at Tynagh Mine



MINERAL EXPLORATION

During 1978 your Company, through its wholly owned subsidiary and associated companies, was directly involved in extensive exploration programs for a variety of minerals principally in Ireland, Canada and Australia. This broadly based minerals search represented a combined group expenditure of approximately \$3 million.

On its own account, Northgate and its wholly owned subsidiary companies expended approximately \$1.9 million in maintaining the momentum of its exploration activities during 1978. The major portion of this expenditure was concentrated in Ireland on a diversified regional exploration program and intensive drilling operations in the vicinity of the Tynagh Mine. Results from the work carried out during 1978 have been sufficiently encouraging in several areas to warrant maintaining exploration in Ireland at a high level.

In Canada, the major thrust of the 1978 program was uranium exploration in the Johan Beetz area of Quebec where joint venture programs with Westfield Minerals and Noranda Mines subsidiary, Norex, were continued. The work completed to date has outlined several areas of low grade uranium mineralization with possible open pit dimension. Ground holdings in the area have been consolidated and adequate work has been completed to maintain them in good standing for at least five years. For 1979 the program has been scaled back and proposed diamond drilling to test the depth extensions of these zones has been deferred in view of heavy commitments and priorities of newly acquired ground in Newfoundland.

During October and November 1978 Northgate acquired by staking and option, the exploration rights to a total of 142,657 acres in Newfoundland which are considered to have good potential for the location of uranium deposits. This acreage includes 33 claim blocks and three Reid Lots in the Deer Lake area (many of which are in close proximity to the area of the Westfield discovery of high grade uranium mineralization in sandstones within the Deer Lake Basin), four claim blocks in the Codroy Valley area and a further five claim blocks in the Meelpaeg Lake area of south-central Newfoundland. Northgate will also participate in the exploration of six claim blocks in the Lake Melville area of Labrador staked on behalf of Whim Creek Consolidated.

Other exploration programs in Canada included the search for uranium, gold and base metals in Ontario. Appraisal of property and project submissions to the Toronto office and field examination of properties on offer continued to be an important function of the exploration department based in Toronto.

The 1979 Exploration Program

In 1979, the combined exploration expenditures of the Northgate group of companies is budgeted at \$3.5 million. It is proposed that Northgate's own expenditure will amount to \$2.3 million of which \$1.6 million will be spent in Ireland. The Tynagh Mine area will again be subject to an intensive diamond drilling program costing approximately \$250,000. This program will concentrate almost entirely on testing areas of known mineralization and the remaining geological targets in the area.

The scope of the "outside" exploration program in Ireland will be broadened to diversify from lead-zinc deposits in carbonate rocks to a greater range of minerals in a variety of geological environments. The principal minerals sought will include uranium, tungsten, tin, molybdenum and base metals.

Quite recently, prospecting licences covering areas in Donegal have been offered to the Company by the Minister for Industry, Commerce and Energy. Exploration of the Donegal areas will commence as soon as the formal documents have been issued. This program is a joint venture with Tara Prospecting Limited, the wholly owned subsidiary of Tara Exploration and Development Company.

The budget for exploration in North America, mainly Canada, is approximately \$665,000 of which some 60% will be directed towards the exploration of the recently acquired properties in Newfoundland and the joint venture in Labrador. The bulk of the remainder of the North American exploration budget will be directed towards the continuing programs on the Company's uranium claims in Anstruther Township and the gold claims in the Kirkland Lake-Larder Lake area of Ontario. Negotiations to option a molybdenite property in Maine, U.S.A. are in progress and are expected to be completed in time to allow for a full season's exploration program.



Upper: Conveying ore to dense media plant. **Lower:** Headframe at Tynagh Shaft.

ASSOCIATED COMPANIES AND PRINCIPAL INVESTMENT HOLDINGS

ANGLO UNITED DEVELOPMENT CORPORATION LIMITED

(Northgate Interest — Direct 27.7%)

The Company has been continuously involved in exploration in the Republic of Ireland since 1962. Its prospecting licences and joint venture interests are held by its wholly owned Irish subsidiary, Munster Base Metals Limited.

Exploration activity in the 1977-1978 fiscal year highlighted the extensive program being conducted on the group of four prospecting licences in County Donegal which were issued to Munster on May 26th, 1978. The Donegal licences cover an area of some 46,000 acres or approximately 72 square miles over the south-eastern half of the NE trending Main Donegal Granite.

Exploration on the Donegal licence group has been continuous since early 1978 and has progressively gained momentum since that time. The bulk of recent exploration has been directed towards more closely defining the main zone of high radioactivity and identifying specific targets along its length for follow-up core diamond drill testing.

The work currently in progress involves detailed geological mapping and radiometric prospecting, trenching, rock and channel sampling, overburden and stream geochemistry. Trenching has so far been carried out on eleven separate target areas of particularly high radioactive response where the bog and drift cover is less than 1.5 meters. While the area is generally covered by peat bog and glacial drift with limited rock exposure, the most recent work has shown that it is

possible to trace the zone beneath the superficial cover geochemically by sampling close to the bedrock/overburden interface at depths ranging from 1-6 meters with a portable percussion drill and suitable sampling attachment.

The program is seen as an extensive and systematic undertaking and the budget for the current calendar year is tentatively placed at approximately \$400,000 and will be expanded as warranted by results.

Munster's exposure in Ireland involves a total of 62 licences in various geological environments. Of these, 16 licences are 100% owned and operated by Munster, the remainder under various Joint Venture agreements. Second ranking to the Donegal program in terms of current priorities is the ongoing joint venture with Société Minière et Métallurgique de Penarroya ("Penarroya") and Preussag Aktiengesellschaft Metall ("Preussag") involving 12 prospecting licences in two principal areas, Counties Cork and Wexford, the former containing the known Tullacondra copper-silver deposit. Munster holds a one-third participating interest in this project.

Exploration expenditures for the year ended October 31, 1978 totalled \$269,753. Subsequent to the 1978 fiscal year end, the Company received additional financing through the sale of 350,000 treasury shares to Northgate at a price of \$2.95 per share or a total of \$1,032,500. Anglo United and its wholly owned investment subsidiary hold 246,333 shares of Northgate.

At December 31, 1978 Northgate's holdings in Anglo United totalled 2,039,500 shares or 27.7% of the issued capital.

WESTFIELD MINERALS LIMITED

(Northgate Interest — Direct 44.7%)

Westfield is an exploration and investment holding company whose principal assets include substantial minority shareholdings in Northgate Exploration Limited, Vestgron Mines Limited, and Whim Creek Consolidated N. L. Reference is made to the appended corporate profiles for current information regarding Vestgron Mines Limited and Whim Creek Consolidated.

Mineral Exploration

Throughout most of 1978, the Company's exploration activities were concentrated in Newfoundland. Initially, this consisted of reconnaissance exploration for uranium on some 260,000 acres optioned from the Reid Newfoundland Corporation. Work was accelerated during October following the discovery of uranium-mineralized float material in sandstone fragments obtained from three pits sunk along the banks of Wigwam Creek near the junction with the Upper Humber River near Deer Lake.

Following the discovery of this float material containing very encouraging uranium values, the Company staked a total of 941 claims covering approximately 37,500 acres and also optioned an additional three Reid Lots totalling a further 30,000 acres, contiguous or near the area of the discoveries.

Subsequently an initial trench, some 50 feet long, four feet wide and seven feet deep, was excavated parallel to and about 15 feet distant from two of the three pits sunk along the banks of the creek in which the uranium-bearing sandstone fragments and boulders were uncovered. Fifteen large grab samples of weakly to

highly radioactive sandstone, which were selected while being excavated from the weathered bedrock during digging the trench, were assayed. The four best samples assayed returned 0.8 lb., 5.8 lbs., 13.8 lbs., and 25.6 lbs. U₃O₈ per ton.

In addition to the hand-excavated trench, four additional trenches were dug to a depth of 6 to 7 feet with a back-hoe mounted on a bulldozer. In three of the four trenches, zones of high radioactivity were located associated with iron-stained sandstones. In trench No. 5, moderate radioactivity was recorded over a trench length of about 25 feet and within this length there were two zones of high radioactivity.

A limited program of test diamond drilling, consisting of a series of shallow holes was put down in the vicinity of the trenches as well as a few holes drilled down dip of the known showings. Although this test drilling did not intersect significant mineralization, a 'down-the-hole' radiometric probe instrument survey did indicate down dip continuity of radioactivity. It was concluded that in the absence of definitive ground instrument survey or other work to assist in spotting additional drill holes, a program of geochemical sampling of the bedrock would be undertaken for further target development.

During late January through to the end of February a program of line cutting was carried out to establish an initial 100 meter by 25 meter grid to cover the general area of interest. Geochemical sampling of bedrock within the grid area using a cobra drill has now commenced. Follow-up deeper core drilling is scheduled on the completion of the bed rock sampling designed to trace the known mineralization.

The bulk of the \$600,000 to \$700,000 budget for the 1979 mineral exploration has been designated for the program at Deer

Lake. This is quite separate from contemplated expenditures in connection with the Company's oil and gas ventures in Western Canada.

Oil and Natural Gas Projects

Approximately \$800,000 was expended by the Company during 1978 on the acquisition of an approximate 25% interest in the Wayne Rosedale 'B' Pool plus the drilling of four wells under a farmout agreement with Cairn Petroleums Ltd. in which the Company has a 25.1% interest.

The land has 14 wells in the Wayne Rosedale Basal Quartz 'B' Pool and one well on 160 acres in the Basal Quartz 'E' Pool. The 25% working interest involves 3,048 acres plus a 17.5% working interest in 480 acres. One section has yet to be earned, however, the earning well is planned for the immediate future.

The Wayne Rosedale Basal Quartz 'B' Pool is located about 50 miles northeast of Calgary, Alberta, and was discovered in 1954, producing from an average depth of approximately 4,590 feet. The northern portion is currently being water-flooded to improve recovery. In the first year of operation (1979) production of the field may not exceed 245 barrels per day, however, the production in 1980 is presently estimated at 350 barrels per day. Total production from the 'B' Pool during January, 1979 was approximately 6,717 barrels.

Of the four recently drilled wells, only two have significant production data. In January, 1979 wells 6-15 and 2-15 produced at rates of up to 108 barrels and 49 barrels per day during testing. Recent drilling in the area has extended the pool to the south and as the pool's southern limits are still undefined, a drilling program has been planned to fully delineate the reservoir. This program is currently being implemented. Infill drilling of the proved locations is also planned for 1979.

The calculated remaining total reserves of the Wayne Rosedale Basal Quartz 'B' Pool at March 1, 1979 are estimated at 6,455,000 barrels while the calculated remaining total reserves for the 'E' Pool are estimated at 260,000 barrels.

The Company also has a 7.5% working interest on a 2,240-acre tract in the Slave Point area, Northeastern British Columbia.

Investments

Westfield's principal investments consist of the following:

Northgate Exploration Limited
— 936,619 shares, direct interest 13.6%

Vestgron Mines Limited —
414,500 shares, direct interest 9.8%, indirect 0.7%*

Whim Creek Consolidated N. L.
— 2,500,000 shares, direct interest 22.5%, indirect 4.3%*

* Indirect interest derives from 13.6% interest in Northgate.

The approximate combined market value of these principal investments as at December 31, 1978 was \$11.8 million compared with \$9.7 million in 1977. Current approximate market value (March 15, 1979) is \$13.1 million.

Financial

Westfield's mineral exploration expenditures during 1978 amounted to \$292,618 compared with \$304,098 in 1977. Costs of interests in oil and gas properties acquired in 1978 totalled \$870,168; there was no similar expenditure in the previous year.

Consolidated net loss for the year was \$66,931 which compares with a loss in 1977 of \$451,343 (restated). Working capital deficiency at the 1978 year end was \$580,558 compared with a positive working capital of \$504,296 in 1977. The principal factor in the \$1,084,854 decrease in working capital during the year

was the \$870,168 expended in the acquisition of interests in oil and gas properties.

At December 31, 1978 Northgate's holdings in Westfield totalled 2,803,075 shares or 44.7% of the issued capital.

WHIM CREEK CONSOLIDATED N. L.

**Northgate Interest — Direct 31.5%)
— Indirect 10.1%)**

Whim Creek is active in exploration, both on its own account and in conjunction with other companies, principally in the West Pilbara region in the vicinity of Roebourne, and in the Meekatharra and Eastern Goldfields areas, Western Australia. Activities in 1978 were mainly directed toward the continuing test work for metallurgical and engineering design purposes in connection with planned operation by mining and heap leaching of Meekatharra gold properties. In addition, the metallurgical and engineering studies relating to the concept of leaching operations based on the Whim Creek-Mons Cupri oxide copper deposits, were completed early in the year.

Other planned activities of Whim Creek during 1979 include diamond exploration on property interests in the Kimberley region; additional exploration (geophysical surveying and drilling) on the Sholl copper-nickel properties; and the continuation of drilling and metallurgical investigations on the optioned Burtville and Morgans Gold Mines' properties in the Eastern Goldfields region.

Gold Properties — Meekatharra Area

The Meekatharra gold properties totalling some 74 gold mining leases and other mineral claims, are the subject of the Meekatharra-Murchison joint venture agreements in which

Whim Creek is entitled to earn up to approximate interests of 50%. The concept of the Meekatharra project involves the mining and treatment of easily accessible oxidized gold mineralized material outlined by drilling in the vicinity of narrow higher grade lodes mainly worked some 50 years ago, when gold prices were around \$20 per ounce.

Whim Creek plans to commence operations by mining and heap leaching at one of these properties, the Haveluck deposit, where earlier rotary reverse circulation and percussion drilling has shown possible reserves of 1,246,000 metric tons grading 1.95 grams per ton (0.06 oz/ton). The possible reserves for the other properties comprising the Meekatharra-Murchison joint venture agreements are 1,300,000 metric tons at 3.9 grams per ton (0.13 oz/ton). Reserves in tailings areas provide an additional 440,000 metric tons at 2.0 grams (0.064 oz/ton).

These reserves generally occur within 50 meters (about 160 feet) of the surface and the deposits would be amenable for mining by open pit methods with an acceptable waste to ore ratio.

Capital cost estimates for the contemplated operation at the Haveluck deposit based on a preliminary feasibility study by consultants, which is inclusive of operating costs for the initial three month period of mining, is Aust.\$1.5 million. The funding of this project will require additional financing.

Whim Creek-Mons Cupri Deposits

The Whim Creek deposit is owned outright by the Company and agreement has been reached with Texasgulf Australia to acquire rights to the Mons Cupri oxide deposit. Combined reserves of the two deposits (proved and possible) are 3,360,000 metric tons of 1.4% copper (46,700 metric tons of contained metal). Both deposits

could be mined by open pit methods at acceptable waste/ore ratios. There is sufficient extractable copper to provide for production of some 6,000 metric tons per annum of copper cathodes over a period of about six years.

It is proposed to re-examine the capital cost estimates for the Whim Creek-Mons Cupri deposits in light of recent advances in copper extraction technology. The strong recovery of copper prices to the recent peak of around £1,000 per metric ton on the London Metal Exchange enhances the prospects of economic viability of this project.

Preliminary bacterial leaching tests were carried out on representative samples from the West Whundo secondary sulphide reserves (proved and possible) of 48,000 metric tons grading 7.4% copper. This material, together with lower grade ore stockpiled from the Whundo property where approximately 6,000 metric tons grading 24.5% copper were mined in 1976, could provide a basis for a modest operation at appropriate copper prices.

Mt. Sholl Project

Considerable exploration carried out several years ago, generally directed at shallow horizons suitable for open pit mining, indicated probable reserves of about 1.5 million tons grading 1.05% copper and 0.8% nickel. Additional exploration is envisaged during 1979 to test the Mt. Sholl properties including further drilling for possible reserve extensions, confirmation of metal values and samples for metallurgical testing. At least 12 targets are known of which seven have sulphides recovered from earlier shallow percussion drilling. The geologic probability is that several additional deposits of the Mt. Sholl B2 type will be found arranged in lenses around the contacts of the different intrusives.

Financing

An offering of unissued treasury shares is being considered, possibly by way of a rights offering to shareholders in which event it is contemplated that the major shareholder, Northgate Exploration Limited, would subscribe for its entitlement. The purpose of this financing is to fund the gold project as well as other exploration undertakings which have been recommended.

Financial

Whim Creek's expenditures for the year, mainly the continuation of feasibility and metallurgical studies, amounted to approximately Aust.\$408,694. Working capital at December 31, 1978 was Aust.\$721,678 compared with Aust.\$1,104,708 at the 1977 year end.

At December 31, 1978 Northgate's direct holdings in Whim Creek totalled 3,500,000 shares and its combined direct and indirect holdings were 4,617,500 shares.

TARA EXPLORATION AND DEVELOPMENT COMPANY LIMITED

(Northgate Interest — Direct 9.97%)

Concentrate production at the Navan Mine, Ireland, 75% owned by Tara Exploration and Development Company Limited (which in turn is 41% owned by Noranda Mines Limited) amounted to 308,300 metric tons containing 146,000 metric tons of zinc and 28,700 tons of lead. The 1978 production of concentrates came from the treatment of 1,522,400 metric tons of ore grading 10.69% zinc and 2.27% lead.

While progress was made during 1978 in increasing production, the designed rate was not reached because of delays due to modifications in mining plans and a five-week industrial dispute involving concentrator personnel during the third quarter.

Concentrator performance was satisfactory and recoveries improved, particularly for lead, over 1977 performance. Programs undertaken for training, safety and maintenance were increasingly effective.

During 1979 it is expected that the Navan Mine will reach its planned rate of production of concentrates totalling some 470,000 metric tons annually. This will likely be attained in the fourth quarter of the year.

Preliminary unaudited financial results show that net revenue from 1978 concentrate sales totalled \$49,394,000 with a net loss for the year of \$10,696,000 equal to \$1.66 per share including an extraordinary gain on the sale of investments, less income taxes, of \$461,000 equal to 7¢ per share.

VESTGRON MINES LIMITED

(Northgate Interest — Direct 5.2% Indirect 4.4%)

In a preliminary unaudited statement, Vestgron Mines Limited (62.5% owned by Cominco Ltd.) reported net earnings of \$3.7 million or \$0.86 per share against \$5.7 million or \$1.35 per share in 1977. Earnings are obtained from the mining operations at the Black Angel Mine of the Company's wholly-owned Danish subsidiary, Greenex A/S, West Greenland.

Sales of concentrates were \$45.9 million compared with \$42.8 million in 1977. Zinc concentrates sold in 1978 amounted to 120,735 metric tons compared to 137,941 metric tons in 1977. Lead concentrate sales were 44,884 metric tons against 44,953 metric tons in 1977. The Company noted that earnings before depreciation, depletion and taxes (\$11.1 million) were higher than in the prior year (\$10.7 million) but the net was lower because the Danish subsidiary, Greenex A/S, was subject to taxes under the

concession agreement for the full year and depletion was higher as the Cover Zone area of the mine was in production for the entire year.

The Company also noted that during the last few months of 1978 prices for lead and zinc strengthened and had a beneficial effect on the fourth quarter earnings (\$3.4 million or \$0.80 per share) and since the year end both demand and prices for concentrates have continued to strengthen. Concentrate production figures were not provided nor were the year end ore reserves. However, it is noted that in the first six months of 1978 an active underground exploration program in the Black Angel Zone located 400,000 metric tons of ore grading 17% zinc and 7% lead.

At December 31, 1978 Northgate's direct holdings in Vestgron totalled 220,000 shares and its combined direct and indirect holdings were 405,282 shares.

Northgate Exploration Limited

(Incorporated under the laws of Ontario)

Consolidated Balance Sheet as at December 31, 1978 and 1977

Expressed in Canadian dollars

ASSETS

Current Assets

Cash including short term securities, deposits and accrued interest

Smelter settlements outstanding at estimated net realizable value

Concentrates and metal on hand (note 1(c))

Supplies at cost

Accounts receivable and prepaid expenses

Investments in Associated and Other Companies

Shares of associated companies (note 2)

Marketable securities (quoted market value, 1978, \$10,554,000, 1977, \$11,637,000) (note 3)

Other shares and advances at cost less amounts written off

Fixed Assets

Buildings, machinery and equipment at cost

Land in Ireland at cost

Mining claims in Canada at nominal value

Less accumulated depreciation

Other Assets and Deferred Charges

Development expenditures at cost, less amortization

Interest in oil and gas properties

Other deferred charges

LIABILITIES

Current Liabilities

Bank advances

Accounts payable and accrued liabilities

Government royalty payable

Income taxes payable

Future and Deferred Income Taxes (note 4)

Shareholders' Equity

Capital Stock (note 5)

Authorized — 10,000,000 shares at par value of \$1 each

Issued — 6,891,699 shares

Contributed Surplus

Retained Earnings

Approved by the Board

P. J. HUGHES, Director

S. P. BOLAND, Director

Commitments (note 8)

	1978	1977
	\$28,812,000	\$30,267,000
	114,000	846,000
	4,971,000	2,139,000
	617,000	628,000
	810,000	640,000
	<u>35,324,000</u>	<u>34,520,000</u>
	6,162,000	5,121,000
	12,934,000	12,969,000
		37,000
	<u>19,096,000</u>	<u>18,127,000</u>
	17,956,000	15,455,000
	603,000	661,000
	1,000	1,000
	18,560,000	16,117,000
	14,539,000	13,272,000
	<u>4,021,000</u>	<u>2,845,000</u>
	431,000	600,000
	217,000	
		28,000
	648,000	628,000
	<u>\$59,089,000</u>	<u>\$56,120,000</u>
	1978	1977
	\$ 2,665,000	\$ 398,000
	4,246,000	4,068,000
	781,000	522,000
	2,016,000	1,315,000
	9,708,000	6,303,000
	733,000	1,627,000
	6,892,000	6,892,000
	6,849,000	6,849,000
	34,907,000	34,449,000
	48,648,000	48,190,000
	<u>\$59,089,000</u>	<u>\$56,120,000</u>

Auditors' Report

To the Shareholders of
Northgate Exploration Limited

We have examined the consolidated balance sheet of Northgate Exploration Limited as at December 31, 1978 and 1977 and the consolidated statements of income, retained earnings and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1978 and 1977 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied on a consistent basis.

Thorne Riddell & Co.

Chartered Accountants

Toronto, Canada
February 13, 1979

Northgate Exploration Limited

Consolidated Statement of Income

YEARS ENDED DECEMBER 31, 1978 and 1977

Expressed in Canadian dollars

Revenue	1978	1977
Metals	\$13,651,000	\$22,565,000
Deduct shipping, smelting and marketing expenses	4,645,000	8,657,000
	<u>9,006,000</u>	<u>13,908,000</u>
 Operating expenses		
Operating expenses other than items set out below	6,742,000	9,115,000
Administrative and general expenses	1,243,000	1,545,000
Government royalty	189,000	247,000
Depreciation	1,329,000	1,599,000
Amortization of development expenditures	169,000	754,000
	<u>9,672,000</u>	<u>13,260,000</u>
Operating income (loss)	(666,000)	648,000
Exploration	1,887,000	2,371,000
	<u>(2,553,000)</u>	<u>(1,723,000)</u>
Share of losses of associated companies (note 2)	(4,000)	(634,000)
Interest, dividends and sundry income	2,736,000	2,102,000
Exchange gains (losses)	<u>(23,000)</u>	<u>30,000</u>
Income (loss) before income taxes and extraordinary item	156,000	(225,000)
Income taxes (recovery) (note 4)	<u>(302,000)</u>	<u>543,000</u>
Income (loss) before extraordinary item	458,000	(768,000)
Reduction of income taxes resulting from the application of amounts expensed in prior years		<u>178,000</u>
Net income (loss)	<u>\$ 458,000</u>	<u>\$ (590,000)</u>
 Earnings (loss) per share before extraordinary item	 \$0.07	 \$(0.11)
Earnings (loss) per share after extraordinary item	\$0.07	\$(0.085)

Consolidated Statement of Retained Earnings

YEARS ENDED DECEMBER 31, 1978 and 1977

Expressed in Canadian dollars

	1978	1977
Balance at beginning of year		
As previously reported	\$32,598,000	\$35,038,000
Adjustment of prior years' income taxes (note 7)	1,851,000	1,851,000
As restated	34,449,000	36,889,000
Net income (loss)	458,000	(590,000)
Dividend paid (U.S. 25¢ per share)		(1,850,000)
Balance at end of year	<u>\$34,907,000</u>	<u>\$34,449,000</u>

Consolidated Statement of Changes in Financial Position

YEARS ENDED DECEMBER 31, 1978 and 1977

Expressed in Canadian dollars

	1978	1977
Working capital derived from		
Operations	\$ 884,000	\$ 1,476,000
Proceeds on disposal of securities	269,000	
Disposal of fixed assets	85,000	39,000
	<u>1,238,000</u>	<u>1,515,000</u>
Working capital applied to		
Purchase of shares in associated companies	1,032,000	458,000
Additions to fixed assets	2,590,000	243,000
Interest in oil and gas properties acquired	217,000	
Dividend		1,850,000
Purchase of securities		37,000
	<u>3,839,000</u>	<u>2,588,000</u>
Decrease in working capital	<u>2,601,000</u>	<u>1,073,000</u>
Working capital at beginning of year		
As previously reported	26,366,000	27,439,000
Adjustment of prior years' income taxes (note 7)	1,851,000	1,851,000
As restated	28,217,000	29,290,000
Working capital at end of year	<u>\$25,616,000</u>	<u>\$28,217,000</u>

Northgate Exploration Limited

(Incorporated under the laws of Ontario)

Notes to Consolidated Financial Statements

YEARS ENDED DECEMBER 31, 1978 and 1977

Expressed in Canadian dollars

1. Summary of Significant Accounting Policies

(a) Principles of consolidation

- (i) The consolidated financial statements include the accounts of all subsidiary companies, the most significant of which is Irish Base Metals Limited.
- (ii) The Company accounts for its investment in associated companies on the equity basis. Under the equity basis, the Company's equity in the net earnings or losses of associated companies is reflected in the consolidated statement of income and an adjustment is made to the value at which the investment is carried in the consolidated balance sheet (note 2).

(b) Currency translation

Currency balances other than those in Canadian dollars are translated as follows:

- (i) Fixed assets and deferred charges (together with the related depreciation, amortization and deferred income taxes), inventories stated at cost and investments, at historical rates.
- (ii) All other assets and liabilities, at year end rates.
- (iii) Revenue and expense transactions other than depreciation and amortization, at the average rate of exchange prevailing during the year.

(c) Concentrates and metal on hand

Concentrates and metal on hand are valued as follows:

	1978	1977
Concentrates and metal on hand other than copper concentrates, at estimated net realizable value	\$4,740,000	\$2,019,000
Copper concentrates at the lower of cost and estimated net realizable value	231,000	120,000
	<u>\$4,971,000</u>	<u>\$2,139,000</u>

(d) Marketable securities

The Company's investments in marketable securities are carried at cost less a provision for any permanent decline in value.

(e) Depreciation and amortization

Depreciation of fixed assets has been recorded at various rates so as to charge the cost to income over the shorter of the expected useful lives of the assets or the life of the estimated ore reserves.

Development expenditures are being amortized over the estimated life of the mine.

(f) Exploration

The Company and consolidated subsidiaries charge exploration expenditures to income in the period in which incurred. Exploration and certain administrative expenditures of non-producing associated mining companies are deferred as set out in note 2.

(g) Interest in oil and gas properties

The Company's interest in oil and gas properties is carried at cost, including lease acquisition costs, and related exploration and development expenditures. Costs relating to each separate project are capitalized. Depletion is to be provided on producing properties on the unit of production method. Costs will be written down where there has been an impairment in value of a project.

2. Associated Companies

The investment in shares of associated companies is carried on the equity basis:

Mineral exploration companies:

Westfield Minerals Limited

Whim Creek Consolidated N.L.

Anglo United Development Corporation Limited

Other company:

Irish Wire Products Limited

	1978		1977	
	% of shares outstanding	Carrying Value	% of shares outstanding	Carrying Value
Westfield Minerals Limited	45%	\$2,895,000	45%	\$2,901,000
Whim Creek Consolidated N.L.	32%	742,000	32%	751,000
Anglo United Development Corporation Limited	28%	2,028,000	24%	1,011,000
Irish Wire Products Limited	29%	497,000	29%	458,000
		<u>\$6,162,000</u>		<u>\$5,121,000</u>

The Company's equity in the underlying net tangible assets of associated companies is reconciled to the carrying value of the investment on the equity basis, as follows:

	1978	1977
Equity in underlying net tangible assets	\$2,298,000	\$2,442,000
Equity in underlying deferred exploration and administrative expenditures	1,335,000	1,114,000
Excess of cost of investment over underlying net book values at dates of acquisition — attributable to mineral interests	2,529,000	1,565,000
Carrying value on the equity basis	<u>\$6,162,000</u>	<u>\$5,121,000</u>

The Company's share of losses of associated companies since acquisition is \$1,829,000 (\$1,825,000 at December 31, 1977).

Exploration and certain administrative expenditures of associated companies in the mineral exploration business are deferred with the intention that they will be amortized by charges against income from future mining operations or written off at the time a project is abandoned. The recovery of these costs from operations is dependent, therefore, upon the discovery of sufficient ore and the development of economic mining operations by the associated companies. The Company will amortize, by charges against its interest in the income of such mining operations, the excess of cost of investment over underlying net book value at dates of acquisition.

The quoted market value of the shares in associated companies amounted to \$23,814,000 at December 31, 1978 and \$6,503,000 at December 31, 1977. However, because of the number of shares held, the quoted market value is not necessarily indicative of their realizable value.

3. Marketable Securities

Marketable securities include the following which are carried at cost:

	Number of shares	Cost	
		1978	1977
Tara Exploration and Development Company Limited (9.9% interest) (quoted market value 1978 — \$7,886,000; 1977 — \$9,172,000)	643,741	\$ 9,410,000	\$ 9,410,000
Vestgron Mines Limited (5.2% interest) (quoted market value 1978 — \$2,475,000; 1977 — \$2,255,000)	220,000	<u>3,300,000</u>	<u>3,300,000</u>
		<u>\$12,710,000</u>	<u>\$12,710,000</u>

The quoted market value of these holdings is not necessarily indicative of their realizable value because of the number of shares held.

4. Income Taxes

The provision for income taxes comprises the following:

	1978	1977
Current and future (recovery) ...	\$ (220,000)	\$1,255,000
Deferred reduction	<u>(82,000)</u>	<u>(712,000)</u>
	<u>\$ (302,000)</u>	<u>\$ 543,000</u>

The income tax expense differs from the amount which would result from applying the statutory Canadian income tax rate to the 1978 income of \$156,000 before income taxes, and the 1977 loss of \$225,000 before income taxes and extraordinary item, for the following reasons:

	1978	1977
Tax based on statutory Canadian income tax rate of 49% (1977 — 48%)	\$ 76,000	\$ (108,000)
Non-deductible items		
Share of losses of associated companies	2,000	304,000
Foreign exploration expenditure	7,000	117,000
Non-taxable gain on sale of investments	(249,000)	
Non-taxable exchange gains of a capital nature	(199,000)	
Foreign income subject to foreign income tax and not subject to Canadian tax	(68,000)	(163,000)
Tax effect of foreign currency translation including the effect of translating depreciation and amortization relating to foreign operations at historical rates and other income and expense items at the average rate for the year .	125,000	393,000
Sundries	<u>4,000</u>	
Income taxes (recovery)	<u>\$ (302,000)</u>	<u>\$ 543,000</u>

The future and deferred income tax balance comprises the following:

	1978	1977
Income taxes payable in the first quarter of 1980 (1977 — first quarter of 1979)	\$ 188,000	\$1,000,000
Income taxes deferred because of timing differences in the recognition of certain income and expense items for tax and financial statement purposes	<u>545,000</u>	<u>627,000</u>
	<u>\$ 733,000</u>	<u>\$1,627,000</u>

Northgate Exploration Limited

(Incorporated under the laws of Ontario)

5. Capital Stock

Stock option plan

Pursuant to the Officers' and Employees' Stock Option Plan, options may be granted until June 3, 1979 on up to 25,600 shares of the Company's capital stock at prices not less than 90% of the closing price for the Company's shares on the Toronto Stock Exchange on the dates the options are granted.

Options were granted during 1978 and are outstanding at December 31, 1978 on 164,500 shares at \$5.62 per share, exercisable 32,900 shares annually to October 31, 1983.

6. Guarantees

The Company has guaranteed the principal amount of U.S. \$2,400,000, together with the interest thereon, being part of an overrun facility in the principal amount of U.S. \$15,000,000 provided in connection with the senior financing arrangements of Tara Exploration and Development Company Limited's subsidiary, Tara Mines Limited.

7. Adjustment of Prior Years' Income Taxes

As a result of the agreement of income tax assessments in respect of years prior to 1977, the balance of retained earnings at December 31, 1977 and December 31, 1976 previously reported as \$32,598,000 and \$35,038,000 respectively have been restated to include a retroactive credit of \$1,851,000, representing the cumulative amount by which the liability for income taxes had been overstated.

8. Commitments

(a) Oil and gas properties

The Company is participating in a five year programme for the exploration and development of oil and gas involving expenditures of up to \$3,000,000 per annum, \$1,000,000 on exploration and \$2,000,000 on development. Under certain circumstances, the Company has the right to terminate this commitment.

(b) Other

The Company and its subsidiary, Irish Base Metals Limited, are committed to capital expenditures in the amount of \$650,000.

9. Selected Quarterly Financial Data (Unaudited)

Listed below are financial data for each quarter in the year ended December 31, 1978 (in \$'000s except for per share data):

	Three Months Ended			
	March 31, 1978	June 30, 1978	September 30, 1978	December 31, 1978
Net revenue				
— metals	\$ 2,423	\$ 3,824	\$ 417	\$ 2,342
Operating income				
(loss)	\$(1,105)	\$ 492	\$(1,028)	\$ 975
Net income				
(loss)	\$ 356	\$ 209	\$ (870)	\$ 763
Earnings (loss)				
per share ...	\$ 0.05	\$ 0.03	\$ (0.12)	\$ 0.11

Because of the suspension of concentrate shipments during the third and fourth quarters as a result of a labour dispute, no recognition was given in the third quarter to the possible effect of improved metal prices during that quarter on the value of concentrates on hand at the end of the quarter. The labour dispute was settled at the end of the fourth quarter and as a result net income for the fourth quarter includes a credit of \$742,000 in respect of the improvement in metal prices during the third quarter.

Listed below are financial data for each quarter in the year ended December 31, 1977 (in \$'000s except per share data):

	Three Months Ended			
	March 31, 1977	June 30, 1977	September 30, 1977	December 31, 1977
Net revenue				
— metals	\$ 5,026	\$ 3,194	\$ 3,366	\$ 2,322
Operating income				
(loss)	\$ 1,813	\$ 43	\$ (179)	\$(1,029)
Net income				
(loss)	\$ 863	\$ (231)	\$ (386)	\$ (836)
Earnings (loss)				
per share ...	\$ 0.125	\$(0.035)	\$ (0.05)	\$(0.125)

Net income (loss) for the first and second quarters include extraordinary credits of \$103,000 and \$75,000 respectively.

10. Other Statutory Information

Remuneration of the Company's directors and senior officers (as defined by The Business Corporations Act of Ontario) amounted to \$464,000 for 1978 and \$469,000 for 1977.

Summary of 1978 Financial Results by Quarters (Unaudited)

(expressed in thousands of Canadian dollars)

	Three Months Ended				Total
	March 31	June 30	Sept. 30	Dec. 31	1978
Revenue					
Gross selling value of metal and metal concentrates	\$ 4,642	\$ 6,041	\$ 426	\$ 2,542	\$13,651
Deduct shipping, smelting and marketing expenses	2,219	2,217	9	200	4,645
	2,423	3,824	417	2,342	9,006
Operating Expenses					
Operating and administrative costs (including royalty)	3,116	2,883	1,133	1,042	8,174
Operating income (loss) before the undernoted	(693)	941	(716)	1,300	832
Depreciation and amortization	412	449	312	325	1,498
Operating income (loss)	(1,105)	492	(1,028)	975	(666)
Exploration	287	458	463	679	1,887
	(1,392)	34	(1,491)	296	(2,553)
Non-operating revenues					
Equity in income (loss) of associated companies	—	—	119	(123)	(4)
Interest, dividends and sundry income	695	571	714	756	2,736
Exchange gains (losses)	878	(210)	(596)	(95)	(23)
Income (loss) before income taxes	181	395	(1,254)	834	156
Income taxes (recovery)	(175)	186	(384)	71	(302)
Net income (loss)	\$ 356	\$ 209	\$ (870)	\$ 763	\$ 458

Note: Because of the suspension of concentrate shipments during the third and fourth quarters of 1978 as a result of a labour dispute, no recognition was given in the third quarter to the possible effect of improved metal prices during that quarter on the value of concentrates on hand at that time. The labour dispute was settled at the end of the fourth quarter and as a result the revenue figures for the fourth quarter reflect the increase in the value of the concentrate inventory in respect of the improvement in metal prices during the second half of the year.

Summary of 1977 Financial Results by Quarters (Unaudited)

(expressed in thousands of Canadian dollars)

	Three Months Ended				Total
	March 31	June 30	Sept. 30	Dec. 31	1977
Revenue					
Gross selling value of metal and metal concentrates	\$ 7,633	\$ 4,960	\$ 5,606	\$ 4,366	\$22,565
Deduct shipping, smelting and marketing expenses	2,607	1,766	2,240	2,044	8,657
	5,026	3,194	3,366	2,322	13,908
Operating Expenses					
Operating and administrative costs (including royalty)	2,611	2,572	2,985	2,739	10,907
Operating income before the undernoted	2,415	622	381	(417)	3,001
Depreciation and amortization	602	579	560	612	2,353
Operating income (loss)	1,813	43	(179)	(1,029)	648
Exploration	309	714	743	605	2,371
	1,504	(671)	(922)	(1,634)	(1,723)
Non-operating revenues:					
Equity in income (loss) of associated companies	(225)	(81)	(174)	(154)	(634)
Interest, dividends and sundry income	519	527	530	526	2,102
Exchange gains (losses)	108	(30)	72	(120)	30
Income (loss) before income taxes	1,906	(255)	(494)	(1,382)	(225)
Income taxes (recovery)	1,146	51	(108)	(546)	543
Net income (loss) before extraordinary items	760	(306)	(386)	(836)	(768)
Extraordinary items	103	75	—	—	178
Net income (loss) after extraordinary items	\$ 863	\$ (231)	\$ (386)	\$ (836)	\$ (590)

Management's Analysis of the Summary of Financial Results

Presented below is an analysis of the significant factors contributing to the variations in the summary of financial results between the years 1978 and 1977.

Revenue from metals declined by \$4,902,000 (35%) and operating expenses by \$2,373,000 (26%) principally due to a 54% reduction in concentrate production as a result of the suspension of operations during the second half of 1978 because of a labour dispute.

Administrative and general expenses decreased by \$302,000 (20%) mainly because of general cost reductions. These cost reductions were partly offset by higher expenditures in the evaluation of new projects.

The decrease in government royalty of \$58,000 (23%) was mainly due to the decline in income chargeable to royalty.

The \$270,000 (17%) decline in depreciation was mainly due to certain items of plant and machinery having been fully depreciated by the end of 1977.

The \$585,000 (78%) decline in amortization was mainly due to the lower tonnage of ore treated from Zone II.

Exploration expenditures declined by \$484,000 (20%) due to a lower level of exploration in Ireland and North America, less the adverse effect of the decline in the value of the Canadian dollar relative to the Irish pound.

The \$630,000 decline in share of losses of associated companies was principally due to lower write-offs by such companies of exploration expenditures incurred in prior periods.

Interest, dividends and sundry income increased by \$634,000 because of higher income from short-term investments as a result of higher interest rates and profits from the sale of investments.

Exchange losses of \$23,000 in 1978 mainly comprise translation losses in relation to Irish pound liabilities less gains realized on the sale of short-term U.S. dollar investments. Exchange gains of \$30,000 in 1977 mainly comprised translation gains in relation to U.S. dollar assets less translation losses with respect to Irish pound liabilities.

The \$302,000 income tax credit for 1978 compared with the corresponding expense of \$543,000 for 1977 is mainly due to the loss incurred on mining operations in 1978 compared with a profit in 1977.

Market Price and Dividend Information

The following table indicates the high and low closing prices for Northgate Exploration Limited shares on The Toronto Stock Exchange (the principal trading market for Northgate shares) for the quarterly periods indicated, as reported by The Toronto Stock Exchange. Also shown are the per share dividend payments made in the respective periods.

	High	Low	Dividend
1977 First	\$6.12	\$4.30	—
Second	5.75	4.15	—
Third	6.62	4.30	—
Fourth	4.90	4.10	US\$0.25
1978 First	4.80	3.90	—
Second	6.25	4.35	—
Third	6.25	5.25	—
Fourth	7.75	5.25	—

FIVE YEAR COMPARATIVE

(expressed in thousands of Canadian dollars unless

Revenue — metals and metal concentrates

Operating expenses
Depreciation and amortization
Government royalty
Exploration
Profit on disposal of fixed assets

Equity in income (loss) of associated companies
Interest, dividends and profit on sale of investments
Exchange gains (losses)
Provision for decline in value of investments
Income (loss) before income taxes and extraordinary
Income taxes (recovery)
Income (loss) before extraordinary item
Income tax credit
Net income (loss) for the year
Earnings (loss) per share
Income (loss) before extraordinary item
Extraordinary item
Net income (loss) per share for the year
Dividends paid per share
Number of shares used in computing earnings
per share

YEAR END FINANCIAL HIGHLIGHTS

(expressed in thousands of Canadian dollars unless

Working capital
Investments in affiliated and other companies (net)
Fixed assets (net)
Other assets and deferred charges
Cash deposited as collateral
Total invested capital
Future and deferred income taxes
Shareholders' equity
Shares outstanding
Share price high/low (during the year)

FIVE YEAR COMPARATIVE SUMMARY OF PRODUCTION HIGHLIGHTS

Tons ore mined
Tons ore preconcentrated
Tons ore treated in concentrator
Concentrate Production
Lead
Zinc
Bulk
Copper
Totals

Tons treated in concentrator
Tons of concentrates produced
Tons of roasted concentrates produced
Flasks of mercury recovered
Tons of concentrates sold
Flasks of mercury sold

*Certain figures 1974-1977 have been restated.

SCOPE OF OPERATIONS

Northgate is a mining, exploration and investment holding company. Its base metal mining operations are at Tynagh, County Galway, Republic of Ireland. Production commenced in late 1965, initially from the open pit reserves and subsequently, from 1972 ore extraction began from the underground reserves. Since 1974 all ore mined was from underground reserves. The principal products of the mine are lead and zinc concentrates, some of which contain payable quantities of by-product copper and silver. These concentrates are shipped to various European smelters.

Northgate, through various wholly owned Irish subsidiary companies, maintains an active exploration program throughout the Republic of Ireland. Northgate is also active in exploration in Canada and elsewhere, both on its own account and in joint venture with other companies.

Northgate is also active in oil and gas exploration and development throughout North America but primarily in Western Canada, through Mission Oil and Gas Limited, a newly formed private company headquartered in Calgary, Alberta. The latter company also has a U.S. subsidiary, Mission Resources, Inc. Northgate's annual contribution to this project is approximately \$1 million for exploration and up to \$2 million for development, as required.

Northgate has a number of affiliated companies, principally Anglo United Development Corporation Limited (28%), Westfield Minerals Limited (45%) and Whim Creek Consolidated N.L. (32%), which provide a wide exposure to exploration and mining development in other countries, including mining operations in West Greenland and Australia, and exploration in Ireland, Canada, U.S.A. and Australia. In addition to its shareholdings in the foregoing principal associated companies, Northgate has substantial investment holdings including an approximate 10% interest in Tara Exploration and Development Company Limited which, through its 75% owned subsidiary, Tara Mines Limited, operates the large zinc-lead mine at Navan, Republic of Ireland. The Navan Mine achieved commercial production at the end of 1977 and when at capacity operation will be the largest zinc-lead producer in Europe and ranking among the leading zinc-lead mines of the world. The \$150 million Navan mine project resulted from the 1970 discovery under substantially the same management as that of Northgate.

Northgate also holds a combined direct and indirect interest of approximately 9.6% in Vestgron Mines Limited which, through its subsidiary, Greenex A/S, operates a large zinc-lead mine in West Greenland.

Northgate and its wholly owned subsidiaries have a total of more than 400 employees, approximately 90% of whom are employed in mining operations and exploration. The Company has some 9,000 registered shareholders, mainly in Canada and the U.S.A.

FIVE YEAR COMPARATIVE SUMMARY OF HIGHLIGHTS

(expressed in thousands of Canadian dollars unless otherwise indicated)	1978	1977*
Revenue — metals and metal concentrates	\$ 9,006	\$13,908
Operating expenses	7,985	10,660
Depreciation and amortization	1,498	2,353
Government royalty	189	247
Exploration	1,887	2,371
Profit on disposal of fixed assets	—	—
	11,559	15,631
	(2,553)	(1,723)
Equity in income (loss) of associated companies	(4)	(634)
Interest, dividends and profit on sale of investments	2,736	2,102
Exchange gains (losses)	(23)	30
Provision for decline in value of investments	—	—
Income (loss) before income taxes and extraordinary item	156	(225)
Income taxes (recovery)	(302)	543
Income (loss) before extraordinary item	458	(768)
Income tax credit	—	178
Net income (loss) for the year	458	(590)
Earnings (loss) per share		
Income (loss) before extraordinary item	\$0.07	\$(0.11)
Extraordinary item	—	0.025
Net income (loss) per share for the year	\$0.07	\$(0.085)
Dividends paid per share	—	U.S.\$0.25
Number of shares used in computing earnings per share	6,891,699	6,891,699

YEAR END FINANCIAL HIGHLIGHTS

(expressed in thousands of Canadian dollars unless otherwise indicated)	1978	1977
Working capital	\$25,616	\$28,217
Investments in affiliated and other companies (net)	19,096	18,127
Fixed assets (net)	4,021	2,845
Other assets and deferred charges	648	628
Cash deposited as collateral	—	—
Total invested capital	49,381	49,817
Future and deferred income taxes	733	1,627
Shareholders' equity	48,648	48,190
Shares outstanding	6,891,699	6,891,699
Share price high/low (during the year)	\$7.75/3.90	\$6.62/4.10

FIVE YEAR COMPARATIVE SUMMARY OF PRODUCTION HIGHLIGHTS

	TYNAGH	
Tons ore mined	255,079	616,388
Tons ore preconcentrated	255,079	616,388
Tons ore treated in concentrator	205,194	473,641
Concentrate Production		
Lead	11,453	25,053
Zinc	12,569	27,491
Bulk	2,115	5,309
Copper	1,135	1,668
Totals	27,272	59,501
	GORTDRUM MINE	
Tons treated in concentrator	—	—
Tons of concentrates produced	—	—
Tons of roasted concentrates produced	—	—
Flasks of mercury recovered	—	—
Tons of concentrates sold	—	—
Flasks of mercury sold	—	—

*Certain figures 1974-1977 have been restated.

NOTE:

1976*	1975*	1974*
\$11,608	\$20,341	\$25,873
8,790	16,273	14,232
2,562	3,355	4,255
190	19	911
1,541	1,058	604
—	(584)	—
13,083	20,121	20,002
(1,475)	220	5,871
(885)	(279)	(80)
2,435	1,594	1,567
315	541	68
(48)	(240)	—
342	1,836	7,426
722	(48)	2,156
(380)	1,884	5,270
—	—	—
\$ (380)	\$ 1,884	\$ 5,270
\$ (0.05)	\$0.27	\$0.80
—	—	—
\$ (0.05)	\$0.27	\$0.80
—	U.S.\$0.25	U.S.\$0.65
6,891,699	6,891,699	6,605,739

1976	1975	1974
\$29,290	\$20,181	\$16,995
18,194	22,272	22,394
4,240	5,715	8,102
1,382	2,144	3,142
—	2,794	2,724
53,106	53,106	53,357
2,476	2,096	2,508
50,630	51,010	50,849
6,891,699	6,891,699	6,891,699
\$6.00/3.20	\$5.00/2.85	\$8.62/2.50

594,823	648,477	667,119
594,823	648,477	667,119
423,223	488,372	490,356
26,847	29,734	38,084
25,797	41,988	42,511
3,455	4,277	4,849
2,961	2,037	7,038
59,060	78,036	92,481
—	354,612	491,382
—	14,183	13,288
—	4,150	6,369
—	423	775
—	17,284	12,112
—	—	908

to notes to consolidated financial statements for additional information.

Board of Directors*

Sylvester P. Boland,
Dublin, Republic of Ireland
Executive Vice-President
Northgate Exploration Limited

Jerome C. Byrne,
Toronto, Canada
President and Managing Director,
Rayrock Resources Limited

Duncan R. Derry,
Toronto, Canada
President, Duncan R. Derry Limited
Consulting Geologists

John G. Dunlap, Q.C.,
Ottawa, Canada
Barrister and Solicitor
Partner, Dunlap & Schneider

F. Douglas Gibson,
Toronto, Canada
Barrister and Solicitor
Partner, Fasken & Calvin

Matthew Gilroy,
Dublin, Republic of Ireland
Vice-President, Tara Exploration and
Development Company Limited

A. Garfield Heyes,
Toronto, Canada
Vice-President,
Northgate Exploration Limited

Patrick J. Hughes,
Dublin, Republic of Ireland
Chairman of the Board,
Northgate Exploration Limited
and Westfield Minerals Limited

John Kostuik,
Toronto, Canada
Director and Consultant,
Denison Mines Limited
Director, Roman Corporation Limited

Joseph V. McParland,
Dundalk, Republic of Ireland
Secretary-Treasurer, Tara Exploration
and Development Company Limited

George T. Smith,
Toronto, Canada
Barrister and Solicitor
President and Chief Executive Officer,
Northgate Exploration Limited

Michel Trebucq,
London, England
Vice-President
Northgate Exploration Limited

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Chairman of the Board

George T. Smith,
President and Chief Executive Officer

Sylvester P. Boland,
Executive Vice-President and Chief Financial Officer

Matthew Gilroy,
Vice-President

A. Garfield Heyes,
Vice-President of Corporate Relations

Peter McAleer,
Vice-President

Andrea H. Meldrum,
Vice-President of Exploration

Michael Stuart,
Vice-President of Operations

Michel Trebucq,
Vice-President of Marketing

Thomas E. Kelly,
Secretary-Treasurer

Executive Committee

George T. Smith, President
Sylvester P. Boland, Executive Vice-President
John Kostuik, Director

Audit Committee

George T. Smith, Chairman
John Kostuik
F. Douglas Gibson

Mine Manager — Tynagh Mine

D. H. B. Fitzgerald

*As at March 15, 1979

AR17

Northgate

EXPLORATION LIMITED

1978/2

SEMI-ANNUAL REPORT

For the Period Ended

June 30



NORTHGATE EXPLORATION LIMITED

Suite 2602, Royal Trust Tower
P.O. Box 27, Toronto-Dominion Centre
Toronto, Canada M5K 1A1

Semi-Annual Report for the Period Ended June 30, 1978

To the Shareholders:

The consolidated financial statements of income for the second quarter and the six months ended June 30, 1978 together with the consolidated statement of changes in financial position for the latter period are attached. Also included are the comparative figures for the corresponding periods in 1977.

Consolidated Financial Results

Net revenue from concentrates for the second quarter amounted to \$3,824,000 and for the six months ended June 30, 1978 totalled \$6,247,000. The comparative net revenue figures for the corresponding periods in 1977 were \$3,171,000 (restated) for the second quarter and \$8,174,000 (restated) for the six months ended June 30, 1977.

The improvement in second quarter revenue was principally due to an increase in concentrate production as a result of higher head grades and an increase in the lead price. The decrease in revenue for the cumulative six months ended June 30th was principally due to a reduction in concentrate production as a result of the lower tonnage of ore treated. The decline in the zinc price was also a contributing factor.

Operating profit from the Tynagh Mine for the second quarter amounted to \$492,000 and for the six months ended June 30, 1978, there was an operating loss of \$613,000. The comparative 1977 figures were an operating profit of \$48,000 (restated) for the second quarter and \$1,866,000 (restated) for the six months ended June 30, 1977.

The principal factors resulting in the operating loss for the six months ended June 30, 1978 were the aforementioned decline in revenue and the \$898,000 increase in operating expenses, the latter mainly attributable to cost increases and the appreciation in the value of the pound sterling.

Consolidated net income for the second quarter amounted to \$209,000 equal to 3¢ per share and for the six months ended June 30, 1978 amounted to \$565,000 or 8¢ per share. The comparative figures for the corresponding periods last year were a net loss of \$231,000 equal to 3.5¢

per share after an extraordinary credit of \$75,000, and for the six months ended June 30, 1977 of \$637,000 or 9¢ per share after an extraordinary credit of \$178,000. The extraordinary credits for the 1977 periods were reductions in income taxes resulting from the application of amounts expensed in prior years.

Results for the six months ended June 30, 1978 include non-operating income of \$1,266,000 and exchange gains totalling \$668,000 compared with \$1,046,000 and \$78,000 respectively for the corresponding period in 1977. For the 1978 second quarter, non-operating income was \$571,000 less exchange losses of \$210,000 compared with non-operating income of \$527,000 less exchange losses of \$30,000 for the 1977 second quarter.

Working capital at June 30, 1978 was \$26,689,000 compared with \$29,068,000 (restated) at June 30, 1977.

Operations

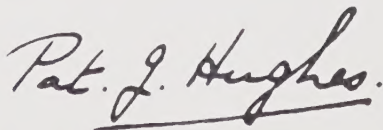
During the three months ended June 30, 1978, 147,803 tons of ore were treated at the Tynagh Mine compared with 165,257 tons for the same period in 1977.

Concentrate production for this period amounted to 17,850 tons comprising 7,796 tons of lead concentrate, 7,979 tons of zinc concentrate, 1,318 tons of bulk concentrate and 757 tons of copper concentrate.

The comparative 1977 period concentrate production was 12,788 tons comprising 6,556 tons of lead concentrate, 5,198 tons of zinc concentrate and 1,034 tons of bulk concentrate.

Because of the labour dispute referred to in the 1978 First Quarter Report, operations at the Tynagh Mine were suspended on July 10, 1978. Negotiations are continuing in an effort to resolve this problem and so enable operations to be resumed.

On behalf of the Board of Directors

A handwritten signature in dark ink, reading "Pat. J. Hughes." The signature is written in a cursive style with a horizontal line underneath the name.

President

August 25, 1978.

NORTHGATE EXPLORATION LIMITED

Consolidated Statement of Income (unaudited) Six Months Ended June 30, 1978

(with figures for the comparative period in 1977)
(expressed in Canadian dollars)

	Three Months Ended June 30		Six Months Ended June 30	
	1978	1977 ^(b)	1978	1977 ^(b)
Revenue				
Metals and metal concentrates ...	\$ 6,041,000	\$ 4,960,000	\$10,683,000	\$12,593,000
Deduct shipping, smelting and marketing expenses	2,217,000	1,789,000	4,436,000	4,419,000
	<u>3,824,000</u>	<u>3,171,000</u>	<u>6,247,000</u>	<u>8,174,000</u>
Operating Expenses				
Operating expenses other than items set out below	2,451,000	2,235,000	5,196,000	4,298,000
Administrative and general expenses	408,000	318,000	776,000	653,000
Government royalty (credit)	24,000	(9,000)	27,000	176,000
Depreciation	371,000	407,000	692,000	807,000
Amortization of development expenditures	78,000	172,000	169,000	374,000
	<u>3,332,000</u>	<u>3,123,000</u>	<u>6,860,000</u>	<u>6,308,000</u>
Operating profit (loss)	492,000	48,000	(613,000)	1,866,000
Exploration	458,000	719,000	745,000	1,033,000
	34,000	(671,000)	(1,358,000)	833,000
Share of losses of associated companies	—	(81,000)	—	(306,000)
Interest, dividends and sundry income	571,000	527,000	1,266,000	1,046,000
Exchange gains (losses)	(210,000)	(30,000)	668,000	78,000
Income (loss) before income taxes and extraordinary item	395,000	(255,000)	576,000	1,651,000
Income taxes	186,000	51,000	11,000	1,197,000
Net income (loss) before extraordinary item	209,000	(306,000)	565,000	454,000
Reduction in income taxes resulting from the application of amounts expensed in prior years	—	75,000	—	178,000
	<u>\$ 209,000</u>	<u>\$ (231,000)</u>	<u>\$ 565,000</u>	<u>\$ 632,000</u>
Earnings (Loss) Per Issued Share				
Before extraordinary item ^(a)	\$ 0.03	\$ (0.045)	\$ 0.08	\$ 0.065
After extraordinary item ^(a)	\$ 0.03	\$ (0.035)	\$ 0.08	\$ 0.09

NOTE:

(a) Based on the weighted average number of shares outstanding during each period being 6,891,699 shares.

(b) Certain of the 1977 figures have been restated.

NORTHGATE EXPLORATION LIMITED

Consolidated Statement of Changes in Financial Position (unaudited)

For the Six Months Ended June 30, 1978

(with comparative figures for 1977)
(expressed in Canadian dollars)

	Six Months Ended June 30	
	1978	1977
Working Capital Derived from		
Operations	\$ 516,000	\$ 1,735,000
Disposals of fixed assets	67,000	31,000
Disposals of marketable securities	37,000	—
	<u>620,000</u>	<u>1,766,000</u>
Working Capital Applied to		
Additions to fixed assets	297,000	100,000
Purchase of marketable securities	—	37,000
	<u>297,000</u>	<u>137,000</u>
Increase in Working Capital	<u>\$ 323,000</u>	<u>\$ 1,629,000</u>
Working capital at beginning of period as previously reported	\$ 26,366,000	\$ 26,794,000
Reclassification of prior period	—	645,000
As restated	<u>\$ 26,366,000</u>	<u>\$ 27,439,000</u>
Working capital at end of period	<u>\$ 26,689,000</u>	<u>\$ 29,068,000</u>

